

### Lake Miramar Dam Sunny Day Dam Breach Overview

San Diego County, California  
State Dam ID: 8.011  
& National Dam ID: CA00115

0 100 200 Miles

Modeling Date:	June-2019
Map Creation Date:	July-2019
By:	S. Wolfskill

**Legend**

Cross Section

Flow Path

Detailed Sheet Extent

Approx. Maximum Flooding Extent

Notes:

1. This inundation map has been prepared in a manner consistent with that level of care and skill ordinarily exercised by Kleinfelder's profession practicing in the same locality, under similar conditions and at the date services are provided. Our conclusions, opinions, and recommendations are based on a limited number of observations, data, and the current guidance and requirements outlined by the California DSOD.
2. The information on this graphic representation has been compiled from a variety of sources and is subject to change without notice. Kleinfelder makes no representations or warranties, express or implied, as to accuracy, completeness, timeliness, or rights to the use of such information. The information shown on this map is approximate and should be used as a guideline for emergency response and preparation purposes. This document is not intended for use as a land survey project nor is it designed or intended as construction design document. The use or misuse of the information contained on this graphic representation is at the sole risk of the party using or misusing the information.
3. All elevations are reported in the NAVD88 vertical datum.
4. Inundation depths less than one foot are not shown.
5. Mapped depths and arrival times will vary based on breach conditions, hydrologic conditions, modelling assumptions, and other factors. Emergency action plans that utilize these maps may want to consider a factor of safety for arrival times.

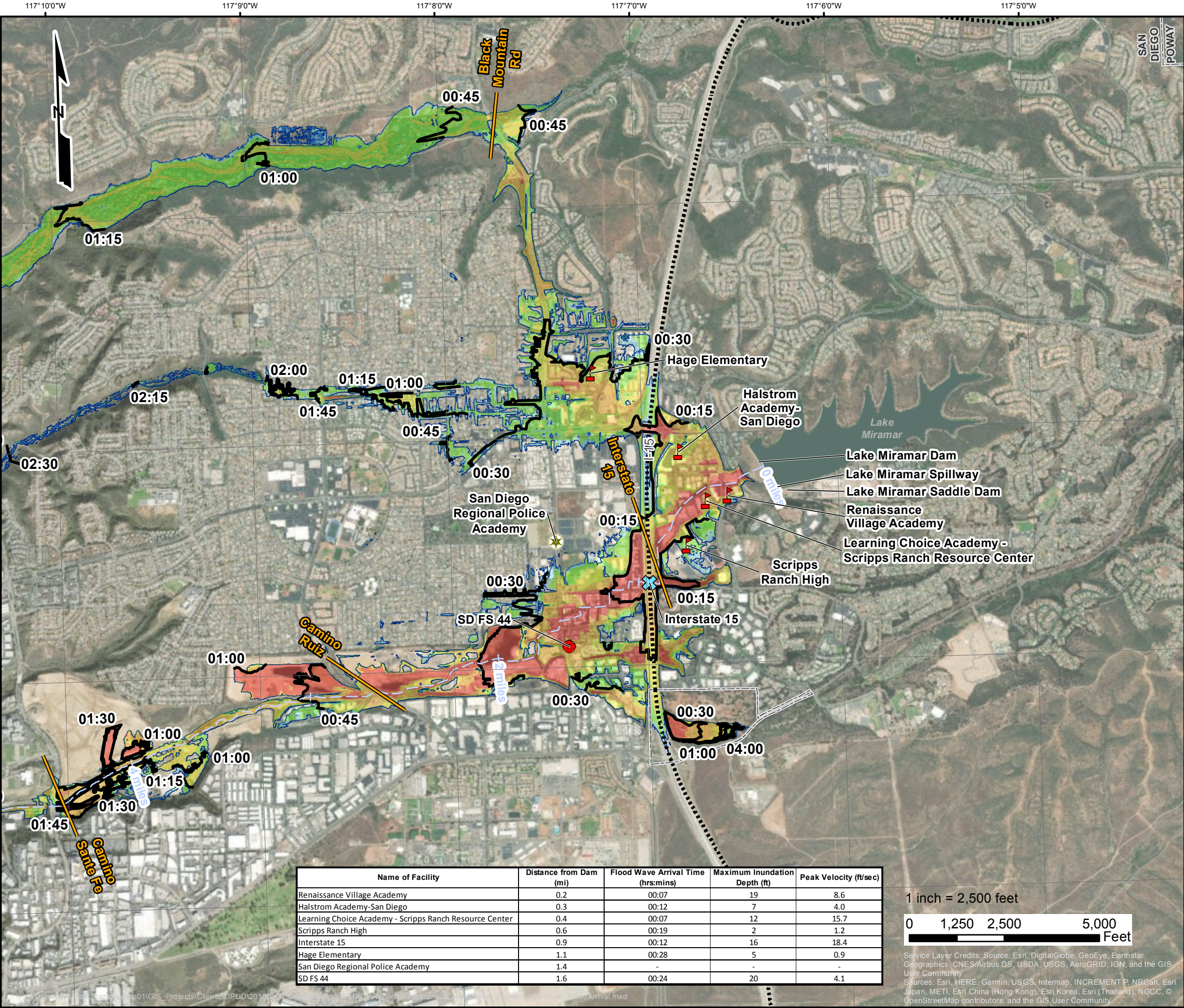
Bright People. Right Solutions.

550 West C Street, Suite 1200  
San Diego, CA 92101  
(619) 831-4600

Engineer Elizabeth Bissonnette

License No. C68830





Name of Facility	Distance from Dam (mi)	Flood Wave Arrival Time (hrs:mins)	Maximum Inundation Depth (ft)	Peak Velocity (ft/sec)
Renaissance Village Academy	0.2	00:07	19	8.6
Halstrom Academy-San Diego	0.3	00:12	7	4.0
Learning Choice Academy - Scripps Ranch Resource Center	0.4	00:07	12	15.7
Scripps Ranch High	0.6	00:19	2	1.2
Interstate 15	0.9	00:12	16	18.4
Hage Elementary	1.1	00:28	5	0.9
San Diego Regional Police Academy	1.4	-	-	-
SD FS 44	1.6	00:24	20	4.1



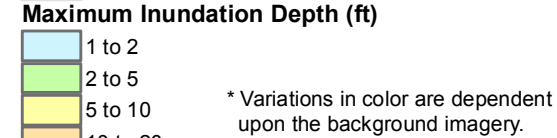
Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community  
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community

Lake Miramar Dam  
Sunny Day Dam Breach  
Flood Arrival Times  
San Diego County, California  
State Dam ID: 8.011  
& National Dam ID: CA00115



Modeling Date: June-2019  
Map Creation Date: July-2019  
By: S. Wolfskill

- Legend**
- Critical Structures**
- Critical Road Point
  - CalFire Facility
  - Licensed Healthcare Facility
  - Law Enforcement Facility
  - School
- ..... Critical Road
- Approx. Time to 1 Foot Depth (hrs:mins)
- Cross Section
- Flow Path
- Approx. Maximum Flooding Extent
- Municipal Boundary



Notes:

1. This inundation map has been prepared in a manner consistent with that level of care and skill ordinarily exercised by Kleinfelder's profession practicing in the same locality, under similar conditions and at the date services are provided. Our conclusions, opinions, and recommendations are based on a limited number of observations, data, and the current guidance and requirements outlined by the California DSOD.

2. The information on this graphic representation has been compiled from a variety of sources and is subject to change without notice. Kleinfelder makes no representations or warranties, express or implied, as to accuracy, completeness, timeliness, or rights to the use of such information. The information shown on this map is approximate and should be used as a guideline for emergency response and preparation purposes. This document is not intended for use as a land survey project nor is it designed or intended as construction design document. The use or misuse of the information contained on this graphic representation is at the sole risk of the party using or misusing the information.

3. All elevations are reported in the NAVD88 vertical datum.

4. Inundation depths less than one foot are not shown.

5. Mapped depths and arrival times will vary based on breach conditions, hydrologic conditions, modelling assumptions, and other factors. Emergency action plans that utilize these maps may want to consider a factor of safety for arrival times.

Bright People. Right Solutions.

550 West C Street, Suite 1200  
San Diego, CA 92101  
(619) 831-4600

Engineer Elizabeth Bissonnette

License No. C68830



Name of Facility	Distance from Dam (mi)	Flood Wave Arrival Time (hrs:mins)	Maximum Inundation Depth (ft)	Peak Velocity (ft/sec)
Interstate 805	6.7	02:29	16	8.2
Interstate 5	8.3	02:47	10	3.7
N Torrey Pines Rd	11.5	04:34	4	7.4

**Lake Miramar Dam  
Sunny Day Dam Breach  
Flood Arrival Times**  
San Diego County, California  
State Dam ID: 8.011  
& National Dam ID: CA00115



Modeling Date: June-2019  
Map Creation Date: July-2019  
By: S. Wolfskill

**Legend**

**Critical Structures**

- Critical Road Point
- CalFire Facility
- Licensed Healthcare Facility
- Law Enforcement Facility
- School
- Critical Road
- Approx. Time to 1 Foot Depth (hrs:mins)
- Cross Section
- Flow Path
- Approx. Maximum Flooding Extent
- Municipal Boundary

**Maximum Inundation Depth (ft)**

- 1 to 2
- 2 to 5
- 5 to 10
- 10 to 20
- 20+

\* Variations in color are dependent upon the background imagery.

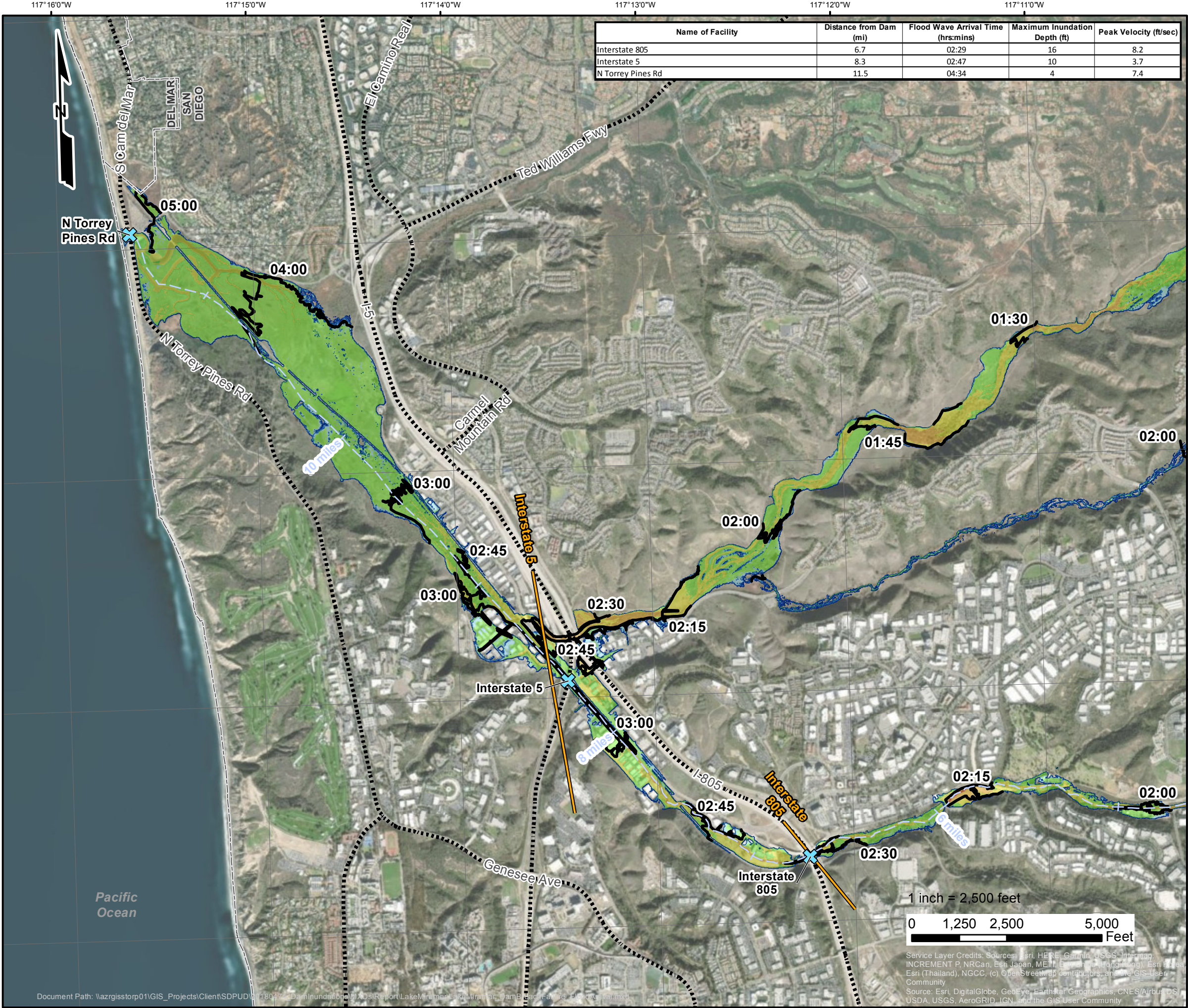
**Notes:**

- This inundation map has been prepared in a manner consistent with that level of care and skill ordinarily exercised by Kleinfelder's profession practicing in the same locality, under similar conditions and at the date services are provided. Our conclusions, opinions, and recommendations are based on a limited number of observations, data, and the current guidance and requirements outlined by the California DSOD.
- The information on this graphic representation has been compiled from a variety of sources and is subject to change without notice. Kleinfelder makes no representations or warranties, express or implied, as to accuracy, completeness, timeliness, or rights to the use of such information. The information shown on this map is approximate and should be used as a guideline for emergency response and preparation purposes. This document is not intended for use as a land survey project nor is it designed or intended as construction design document. The use or misuse of the information contained on this graphic representation is at the sole risk of the party using or misusing the information.
- All elevations are reported in the NAVD88 vertical datum.
- Inundation depths less than one foot are not shown.
- Mapped depths and arrival times will vary based on breach conditions, hydrologic conditions, modelling assumptions, and other factors. Emergency action plans that utilize these maps may want to consider a factor of safety for arrival times.

Bright People. Right Solutions.  
550 West C Street, Suite 1200  
San Diego, CA 92101  
(619) 831-4600

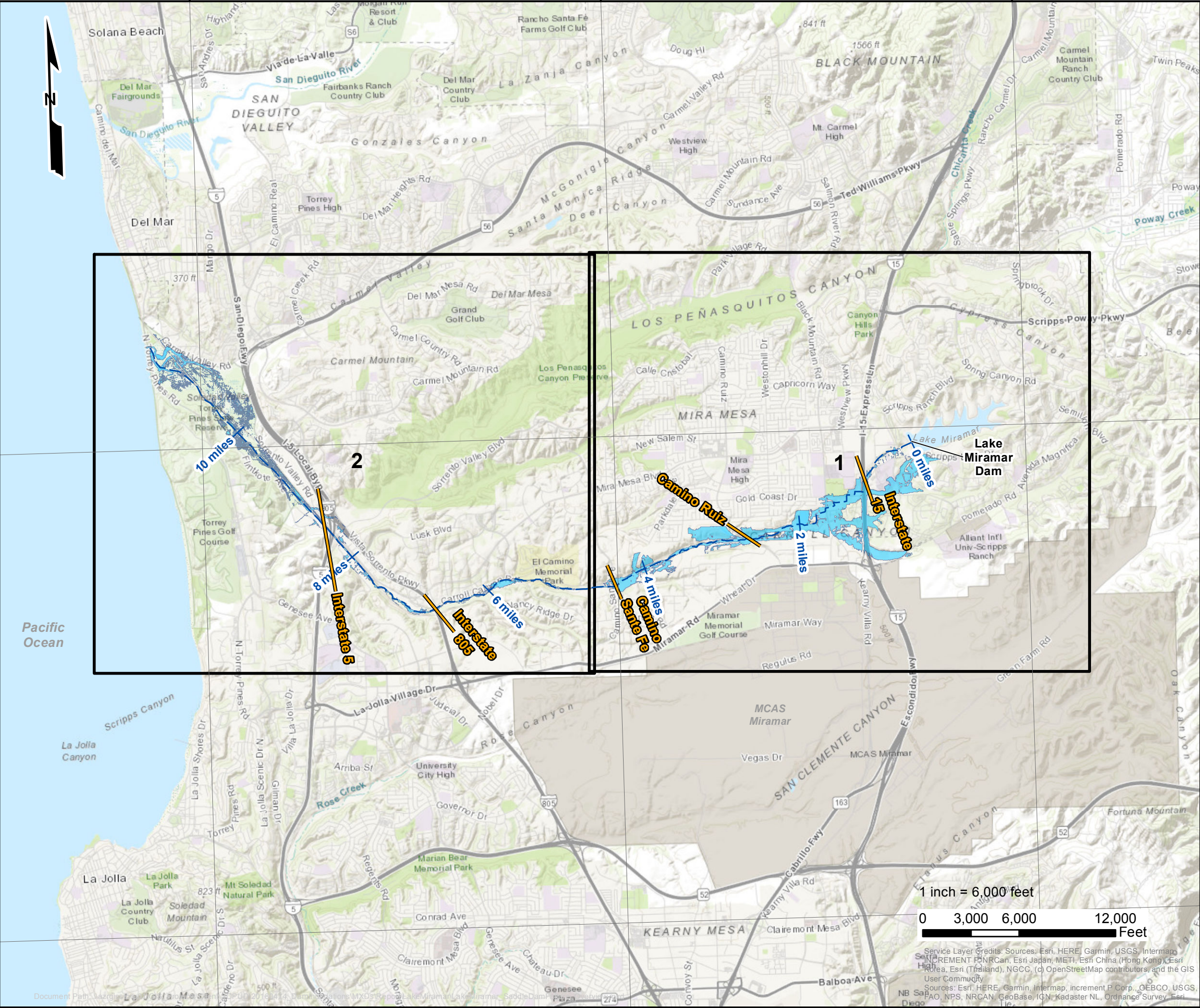
Engineer Elizabeth Bissonnette

License No. C68830



Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community  
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community





### Lake Miramar Dam

### Sunny Day Saddle Dam Breach

### Overview

San Diego County, California

State Dam ID: 8.011

& National Dam ID: CA00115

0100200

Miles

Modeling Date:	June-2019
Map Creation Date:	July-2019
By:	S. Wolfskill

**Legend**

Cross Section

Flow Path

Detailed Sheet Extent

Approx. Maximum Flooding Extent

Notes:

1. This inundation map has been prepared in a manner consistent with that level of care and skill ordinarily exercised by Kleinfelder's profession practicing in the same locality, under similar conditions and at the date services are provided. Our conclusions, opinions, and recommendations are based on a limited number of observations, data, and the current guidance and requirements outlined by the California DSOD.

2. The information on this graphic representation has been compiled from a variety of sources and is subject to change without notice. Kleinfelder makes no representations or warranties, express or implied, as to accuracy, completeness, timeliness, or rights to the use of such information. The information shown on this map is approximate and should be used as a guideline for emergency response and preparation purposes. This document is not intended for use as a land survey project nor is it designed or intended as construction design document. The use or misuse of the information contained on this graphic representation is at the sole risk of the party using or misusing the information.

3. All elevations are reported in the NAVD88 vertical datum.

4. Inundation depths less than one foot are not shown.

5. Mapped depths and arrival times will vary based on breach conditions, hydrologic conditions, modelling assumptions, and other factors. Emergency action plans that utilize these maps may want to consider a factor of safety for arrival times.

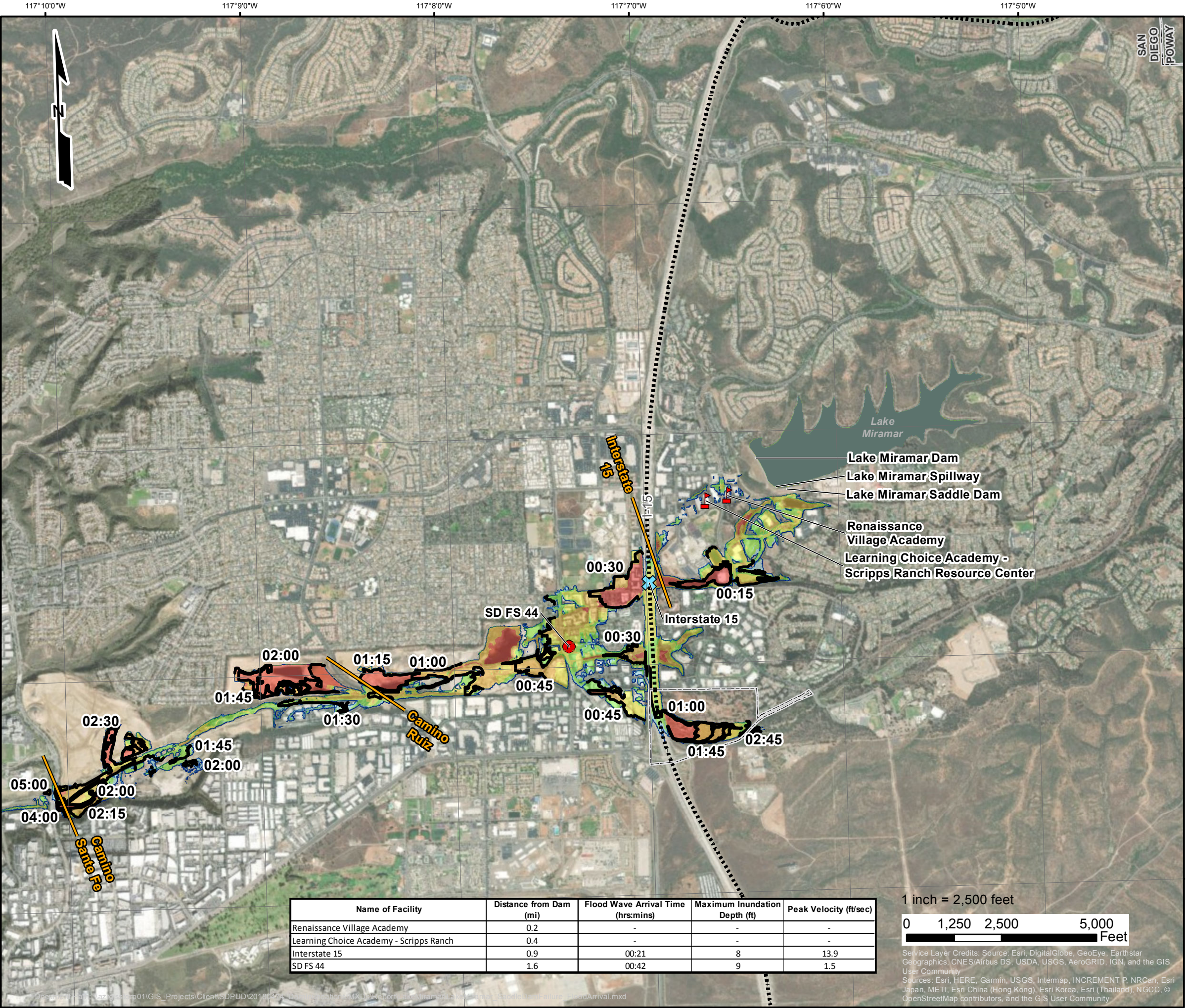
Bright People. Right Solutions.

550 West C Street, Suite 1200  
San Diego, CA 92101  
(619) 831-4600

Engineer Elizabeth Bissonnette

License No. C68830





Name of Facility	Distance from Dam (mi)	Flood Wave Arrival Time (hrs:mins)	Maximum Inundation Depth (ft)	Peak Velocity (ft/sec)
Renaissance Village Academy	0.2	-	-	-
Learning Choice Academy - Scripps Ranch	0.4	-	-	-
Interstate 15	0.9	00:21	8	13.9
SD FS 44	1.6	00:42	9	1.5



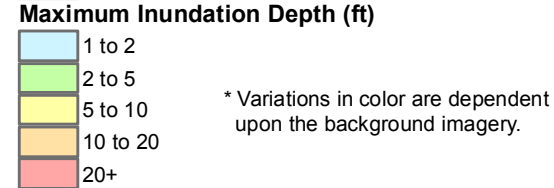
Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community  
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community

**Lake Miramar Dam**  
**Sunny Day Saddle Dam Breach**  
**Flood Arrival Times**  
San Diego County, California  
State Dam ID: 8.011  
& National Dam ID: CA00115



Modeling Date: June-2019  
Map Creation Date: July-2019  
By: S. Wolfskill

- Legend**
- Critical Structures**
- Critical Road Point
  - CalFire Facility
  - Licensed Healthcare Facility
  - Law Enforcement Facility
  - School
- ..... Critical Road
- Approx. Time to 1 Foot Depth (hrs:mins)
- Cross Section
- Flow Path
- Approx. Maximum Flooding Extent
- Municipal Boundary



Notes:

1. This inundation map has been prepared in a manner consistent with that level of care and skill ordinarily exercised by Kleinfelder's profession practicing in the same locality, under similar conditions and at the date services are provided. Our conclusions, opinions, and recommendations are based on a limited number of observations, data, and the current guidance and requirements outlined by the California DSOD.
2. The information on this graphic representation has been compiled from a variety of sources and is subject to change without notice. Kleinfelder makes no representations or warranties, express or implied, as to accuracy, completeness, timeliness, or rights to the use of such information. The information shown on this map is approximate and should be used as a guideline for emergency response and preparation purposes. This document is not intended for use as a land survey project nor is it designed or intended as construction design document. The use or misuse of the information contained on this graphic representation is at the sole risk of the party using or misusing the information.
3. All elevations are reported in the NAVD88 vertical datum.
4. Inundation depths less than one foot are not shown.
5. Mapped depths and arrival times will vary based on breach conditions, hydrologic conditions, modelling assumptions, and other factors. Emergency action plans that utilize these maps may want to consider a factor of safety for arrival times.

**KLEINFELDER**  
Bright People. Right Solutions.  
550 West C Street, Suite 1200  
San Diego, CA 92101  
(619) 831-4600

Engineer Elizabeth Bissonnette  
License No. C68830



Name of Facility	Distance from Dam (mi)	Flood Wave Arrival Time (hrs:mins)	Maximum Inundation Depth (ft)	Peak Velocity (ft/sec)
Interstate 805	6.7	7:21	6	4.0
Interstate 5	8.3	08:18	5	2.9
N Torrey Pines Rd	11.5	14:47	1	2.9

Lake Miramar Dam  
Sunny Day Saddle Dam Breach  
Flood Arrival Times  
San Diego County, California  
State Dam ID: 8.011  
& National Dam ID: CA00115



Modeling Date: June-2019  
Map Creation Date: July-2019  
By: S. Wolfskill

**Legend**

**Critical Structures**

- Critical Road Point
- CalFire Facility
- Licensed Healthcare Facility
- Law Enforcement Facility
- School
- Critical Road
- Approx. Time to 1 Foot Depth (hrs:mins)
- Cross Section
- Flow Path
- Approx. Maximum Flooding Extent
- Municipal Boundary

**Maximum Inundation Depth (ft)**

- 1 to 2
- 2 to 5
- 5 to 10
- 10 to 20
- 20+

\* Variations in color are dependent upon the background imagery.

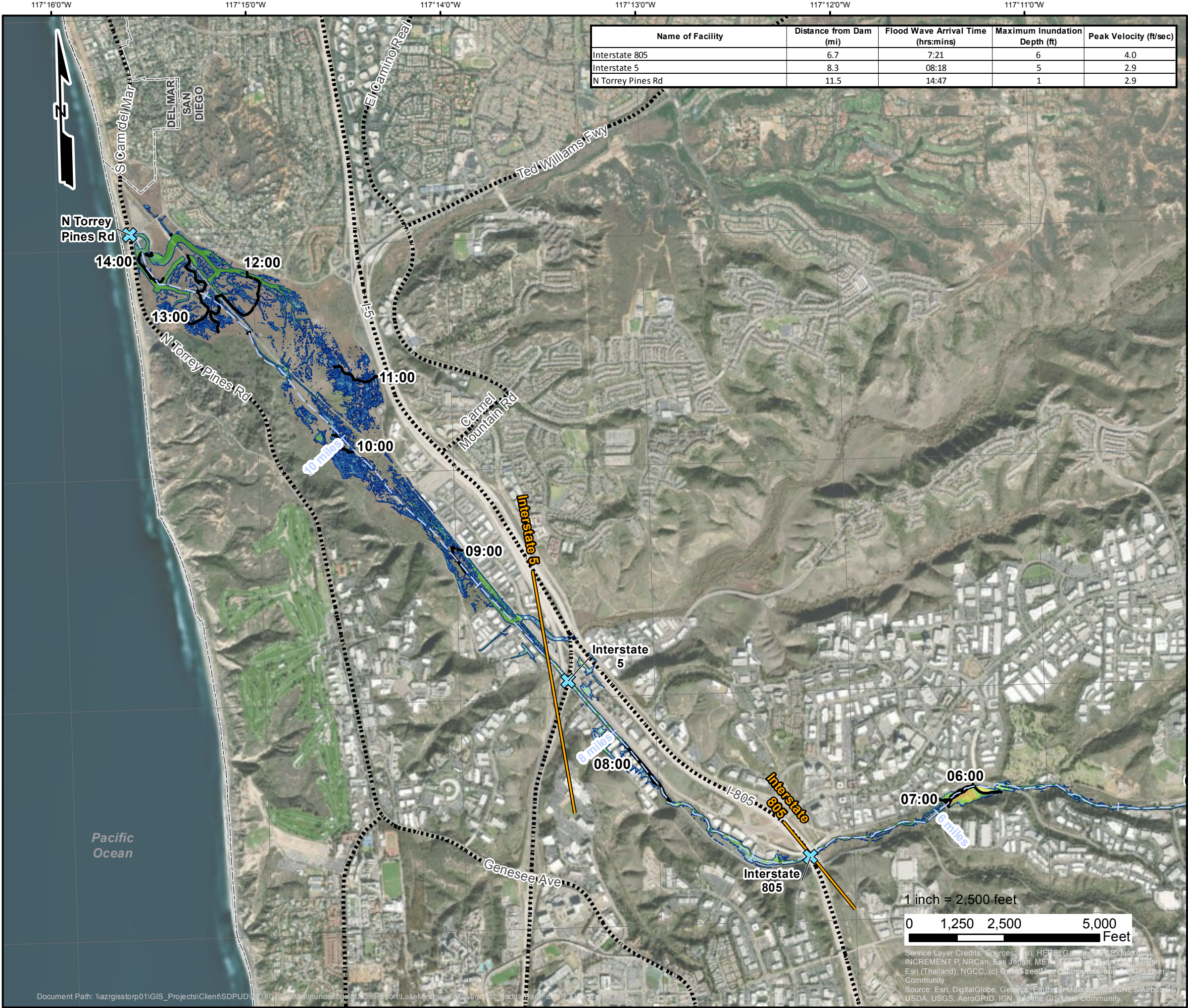
Notes:

- This inundation map has been prepared in a manner consistent with that level of care and skill ordinarily exercised by Kleinfelder's profession practicing in the same locality, under similar conditions and at the date services are provided. Our conclusions, opinions, and recommendations are based on a limited number of observations, data, and the current guidance and requirements outlined by the California DSOD.
- The information on this graphic representation has been compiled from a variety of sources and is subject to change without notice. Kleinfelder makes no representations or warranties, express or implied, as to accuracy, completeness, timeliness, or rights to the use of such information. The information shown on this map is approximate and should be used as a guideline for emergency response and preparation purposes. This document is not intended for use as a land survey project nor is it designed or intended as construction design document. The use or misuse of the information contained on this graphic representation is at the sole risk of the party using or misusing the information.
- All elevations are reported in the NAVD88 vertical datum.
- Inundation depths less than one foot are not shown.
- Mapped depths and arrival times will vary based on breach conditions, hydrologic conditions, modelling assumptions, and other factors. Emergency action plans that utilize these maps may want to consider a factor of safety for arrival times.

Bright People. Right Solutions.  
550 West C Street, Suite 1200  
San Diego, CA 92101  
(619) 831-4600

Engineer Elizabeth Bissonnette

License No. C68830



Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community  
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community